



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NK

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/941,151 | 08/28/2001 | Eric Chapoulaud | ORM-156C1 | 4585 |

26875 7590 06/02/2003

WOOD, HERRON & EVANS, LLP
2700 CAREW TOWER
441 VINE STREET
CINCINNATI, OH 45202

EXAMINER

BUMGARNER, MELBA N

ART UNIT PAPER NUMBER

3732

DATE MAILED: 06/02/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,151

Applicant(s)

CHAPOULAUD ET AL.

Examiner

Melba Bumgarner

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-83 is/are pending in the application.
- 4a) Of the above claim(s) 65-83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 49-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 65-83 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 8.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 50-52, 57-60, 62-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Recitation of "the suggested positions or orientations" in claims 50 and 57, "the computer interface" in claim 51, "the remote location", "the digital communications link", "the data of the accepted revised tooth", "the designing", and "the digital computer" in claim 59, "the design of the custom orthodontic appliance", "the designed custom orthodontic appliance" in claim 60, "the jig", "said surface", and "the shape of the one or more teeth" in claim 62 lack sufficient antecedent basis. In claims 52, 57 and 58, the limitations of the claims are unclear because the claims don't require "change data is entered" with the use of the word "if". Also in claim 52, change data would not have been entered because "data" has not been introduced. Also in claim 58, recalculating step may not be used. In claim 59, communicating step may not be used because "commands accepting tooth. . ." may not have been entered.

Art Unit: 3732

It is unclear what is the difference between "means for performing" in claim 63 and "means for facilitating the performance" in claim 64.

4. Applicant is advised that should claim 63 be found allowable, claim 64 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 49-60, 63, and 64 are rejected under 35 U.S.C. 102(e) as being anticipated by Sachdeva et al. (6,471,512). Sachdeva et al. disclose a method of providing a custom orthodontic appliance comprising communicating from an orthodontic practitioner, three-dimensional information from the mouth of a patient of the shapes of teeth (column 6); displaying, on a computer display for inspection by viewer, the images of suggested tooth positions and orientations (column 7 line 12); communicating, from viewer, feedback information regarding the suggested tooth

positions and orientations (column 7 line 24); providing an appliance configured to urge teeth toward suggested tooth positions and orientations (column 7 line 41). As to claim 50, the viewer is the orthodontic practitioner and the feedback information includes information of changes or information approving tooth positions and orientations (column 7 line 24). As to claim 51, method further comprises providing the practitioner with a computer interface device; providing the device with a capability for entry of information. As to claim 53, the three-dimensional information is derived from an impression of the teeth from the practitioner and displaying of the images of the teeth in response to data digitized from a model of the impression (column 6 line 37). As to claims 54-56, the method shows communicating the three-dimensional information to a remote computing facility (column 8 line 60, column 10 line 28); receiving digital images of the teeth; communicating data to a remote orthodontic appliance manufacturing facility; and receiving from manufacturing facility the appliance (column 9 line 3, 34). As to claims 52 and 57, the feedback information includes information of changes or information approving tooth positions and orientations; providing viewer with capability for entering change data into a computer. As to claims 58-60, method comprises establishing a digital communications link between the display and a computer at remote location; transferring the three-dimensional information to remote location (column 14 line 42); deriving, communicating, processing, and transmitting of data are shown by Sachdeva et al. (column 15). As to claims 63 and 64, Sachdeva et al. shows a system comprising means, including a programmed computer, for performing the method of claim 49. Note that reference columns were selected as examples of the

Art Unit: 3732

steps shown, alternate methods of Sachdeva et al. also show steps as claimed but may not be emphasized.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sachdeva et al. in view of Andreiko et al. (5,431,562). Sachdeva et al. disclose a method that shows the limitations as described above; however, they do not show the appliance including positioning jigs having surfaces thereon that conform to the shapes of teeth. Andreiko et al. teaches method of providing custom orthodontic appliance having positioning jigs (column 6 line 43), locating the jig on the tooth, and positioning and bonding the appliance on the tooth. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Sachdeva et al. to include jigs so that components of the appliance can be secured to the teeth at the precise position and orientation as taught by Andreiko et al.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melba Bumgarner whose telephone number is 703-305-0740. The examiner can normally be reached on Mon-Fri.

Art Unit: 3732

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (703) 308-2582. The fax phone number for the organization where this application or proceeding is assigned is 703-308-2708.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

Melba Bumgarner

Melba Bumgarner

Kevin P. Shaver 5/28/03
KEVIN SHAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700